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NATURAL GAS COGENERATING UNIT WITH SPARK IGNITION ENGINE

MARTIN POWER MTU

Cogenerating unit model

Electric power @ cos phi 0.8
Electric power @ cos phi 1.0
Energy input in fuel ³⁾
Gas consumption (min/max) @ 9,6 kWh/m ³
Thermal power from engine cooling
HT-stage intercooler thermal power
Lube oil cooling thermal power
LT-stage intercooler thermal power ¹⁾
Thermal power from exhaust
Thermal power on the output ²⁾
Electric power efficiency
Thermal power efficiency
Total efficiency
Current
Control panel current
Speed

MP 3000 M - CU

3098 kVA / 2478 kW
2530 kW
5748 kW
318/599 m ³ /h
1200 kW
included in engine cooling
included in engine cooling
175 kW
1147 kW
2522 kW
44,1%
43,9%
88,0%
4470 A
6300 A
1500 min ⁻¹

Engine model

Nominal power
Intake
Speed governor
Cylinders
Bore
Stroke
Displacement
Compression ratio
Ignition sequence
Ignition timing
Lambda
Intake air temperature
Combustion air temperature (min/max)
Air mass flow
Exhaust gas flow
Max. back pressure at exhaust
Max. exhaust temperature (@ rated power)
Radiated heat
Specific gas consumption
Gas consumption (CH ₄) @ 100% load
Gas consumption (CH ₄) @ 75% load
Gas consumption (CH ₄) @ 50% load
Engine oil volume
Engine oil consumption
Coolant volume (CHP)
Coolant pressure (max)
Minimal coolant flow through engine
Coolant temperature - engine (in/out)
Coolant temperature - CHP (in/out)
Heating water temperature (in/out)
Heating water flow rate
LT stage intercooler temperature (in/out)
LT stage intercooler coolant flow
Battery voltage
Starter
Battery

20V 4000 L64

2600 kW
turbocharged with intercooler
electronic
20V
170 mm
210 mm
95,4 dm ³
14:1
on request
fixed
lean burn
25 °C
20/30 °C
12423 kg/h
12853 kg/h
6 kPa
423 °C
165 kW
170 g/kWh
426 kg/h
325 kg/h
226 kg/h
350 l
0,44 l/h
335 l (engine only)
6 bar
106,2 m ³ /h
78/90 °C
78/104 °C
70/90 °C
138,3 m ³ /h
43/46 °C
48,2 m ³ /h
24 V
2 x 9 kW
4 x 170 Ah



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**MARTIN POWER
 MTU**

Cogenerating unit model

MP 3000 M - CU

Generator manufacturer

LEROY SOMER

Generator model

LSA 54 M75

Nominal power

3445 kVA

F class power

3250 kVA

Protection

IP 23

Voltage regulation

electronic

Voltage precision

1,5 %

Emissions ⁴⁾

@ 5% O₂

NO_x

500 mg/Nm³

CO

300 mg/Nm³ (with OxiCat)

HCHO

60 mg/Nm³

Open genset

Length

6000 mm

Width

2000 mm

Height

2600 mm

Weight

17900 kg

Open CHP version

Length

7500 mm

Width

2000 mm

Height

2600 mm

Weight

19150 kg

Canopied CHP version

Length

13000 mm

Width

3100 mm

Height

3100 mm

Weight

Container CHP version

Length

45'

Width

13716 mm

Height

3100 mm

Weight

3100 mm

Installation - connections

Gas inlet

Heating HT circuit

Heating LT circuit (optional)

Exhaust (pipe up to 6 m)

DN 100 / PN 16

DN 50 / PN 16

DN 500 / PN 6

1) The thermal power is available if the cooling water temperature input is below 35°C

2) Theoretical usable thermal power; tolerance +/- 8 %

3) According to ISO 3046 (+ 5 % tolerance), using reference fuel used at 400 V, p.f. 1.0, 50 Hz

4) Emission values during grid parallel operation